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ABSTRACT

An analysis is presented of the effectiveness of a summer workshop conducted for elementary school teachers on providing drug education for their students. Teaching teams from fourteen different schools completed workshop training and returned to their schools to implement a drug education program. While the workshop did not give schools a specific curriculum to be implemented in accordance with specific instructions, teachers were provided with guidelines, materials, and general information on developing curriculum plans for their own schools. A subsequent evaluation of the students who received drug education from these teachers indicated increased drug knowledge but no change in self concept or expected use of various drugs. (JD)

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EVALUATION OF AN ELEMENTARY SCHOOL DRUG EDUCATION PROGRAM: OR HOW DOES TEACHER TRAINING AFFECT STUDENTS

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ABSTRACT

This study examined changes in the self-concept, drug knowledge and expected drug usage of children participating in drug education programs implemented by elementary school teachers who participated in a summer workshop training program. Results indicated increased drug knowledge but no change in self-concept or expected use of various drugs.

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EVALUATION OF AN ELEMENTARY SCHOOL DRUG EDUCATION PROGRAM:

OR HOW DOES TEACHING TRAINING AFFECT STUDENTS

At the University of Arkansas we conduct a workshop each summer in drug education for elementary school teachers. This is part of a training project sponsored by the Arkansas Office of Drug and Alcohol Abuse Prevention.

Our contact calls for us to assist, through a summer workshop training experience, school teams, consisting of 3-5 elementary teachers from each school. We conduct a five day summer training workshop at the Fayetteville Campus. Workshop content includes (1) information about drugs, (2) self-concept, decision making and values information, (3) presentation of available educational materials and (4) suggestions in curriculum development. Project staff make two site visits to each school and are also available to individual teachers and schools as consultants throughout the summer and the entire school year.

In the summer of 1984 teaching teams from 14 different schools completed workshop training and returned to their schools to implement a drug education program. A teaching team was to consist of one teacher each from the fourth, fifth and sixth grades, plus a support person (principal, counselor, school nurse, etc). In most cases schools did bring complete teams.

Sometimes teachers from other grades were included as part of the team. Workshop participants received one hour of graduate credit for the workshop and were enrolled in two hours of independent study. Teachers received credit for the independent study by developing and implementing a curriculum plan for their classroom.

Each participating school received a copy of "Suggested activities in drug education-grades 4, 5, and 6." This is a book of

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activities that has been assembled and "classroom tested" by selected public school teachers throughout the state. Outlines important concepts by grade level. Each school also received a copy of the Arkansas Drug Education Model. This is a collection of values and decision making activities assembled by the Arkansas State Department of Education. Additionally, school teams were allowed to order materials designed to promote self concept and decision making skills such as those developed by American Guidance and drug content materials as developed by Walt Disney and Film Loops Inc.

Teachers and school teams developed curriculum plans based upon the workshop experience and materials which were secured for them. Actual curriculum development and implementation was left to individual schools and teachers.

Our approach was not to give schools a specific curriculum to be implemented in accordance with very specific instructions. We provided teachers with guidelines, materials, activities and the general where-with-all to develop curriculum plans for their own school. We felt that this approach had several advantages:

1. It can be integrated into the curriculum. Rather than imposing something else to teach (on teachers who are already responsible for everything under the sun) the promotion of self-concept and the teaching of drugs, values and Self-Concept. First let's examine self concept. The Hare Self Esteem Scale, Used in this study, consists of three

INSERT TABLE 1

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components - Peer Self Esteen, School Self Esteen and Home Self Esteem as well as a Total Self Esteem score. A separate analysis was conducted for total self concept as well as each of the three

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INSERT TABLE 2

ABOUT HERE

components. The analysis showed no difference between the control and experimental group regarding peer self concept.

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This was also true for school, home and total self concept. This indicates that the programs implemented by teachers attending the workshop had no measurable effects on student self concept.

INSERT TABLE 4

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Knowledge

Students participating in the drug education program did show an increase in knowledge, but as the Table 5 shows there was treatment group by grade level interaction. This indicates that the degree of increase in drug knowledge was dependent grade level. Since all three grade levels took the same test, such results might be expected. Sixth graders are a little older than the fourth and fifth graders and might show greater gains between pre and post testing.

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A follow-up test to compare differences between means by grade level, however, indicated that the only differences were between fifth and sixth.

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Expected use of cigarettes was measured by asking "do you think you will be a regular cigarette smoker in the future, like when you grow up?" Expected use questions for smokeless tobacco (dipping or chewing), drinking alcoholic beverages, and the use of marijuana or other illegal drugs were asked in a similar manner. A yes answer was scored "2". Difference scores for each individual concerning each substance were determined by subtracting post test scores from pre test scores. This yielded three groups of students - those who did not change their expectations of use (or non-use) of a substance; those who changed from yes to no; and those who changed from no to yes. Data were organized into 2 x 3 contingency tables and analyzed utilizing the chi-square test of the independence of categorical variables. Table 6 shows observed frequencies and indicates no significant relationship between participation in the drug education program and a change in reported use expectations.

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DISCUSSION

The results of our evaluation show an increase in drug knowledge (with a differential effect by grade level) but no measurable effect on self-concept or drug use expectations. At least there was an increase in knowledge. While some authors have called knowledge an "irrelevant variable" in drug education, health educators generally hold that people need a sound knowledge base in order to make wise decisions regarding their health. There was no measurable effect on self-concept. This could perhaps be "explained" in several ways but the most obvious explanation is that the program, as implemented, had no beneficial effects in this area. The same can be said for change in expectations of use.

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Drug education programs have been criticized for not accomplishing more than increasing knowledge and for perhaps promising more than can be delivered. Perhaps our program should be included in this group. On the other hand teachers and administrators are pleased with the training we have provided. Teacher and students are pleased with programs that have been implemented. They believe that some positive things are happening as a result of the program. We will continue to examine, evaluate and revaluate what we are doing in training and how teachers carry out implementation activities. We will try to utilize evaluation methods that may be more sensitive to what may (or may not) be happening as a result of classroom experiences. We have not been able to produce a glowing report that validates all of our drug education activities. At the same time we are not ready to junk the program; at least not yet.

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TABLE 1

THREE FACTOR ANOVA (Treatment Grade Sex) FOR PRE-POST DIFFERNCES IN SELF-CONCEPT SCORES

	SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROBABILITY
PEER SELF CONCEPT	Model	11	202.65	18.42	0.68	0.761
	Error	802	21791.19	27.17		
	Corrected Total	813	21993.84			
	Treatment	1	4.71		0.17	0.677
	Grade	2	54.31		1.00	0.368
	Sex	1	6.23		0.23	0.632
	Treatment* Grade	2	53.08		0.98	0.377
	Treatment* Sex	1	8.28		0.30	0.581
	Grade*Sex	2	38.16		0.70	0.496
	Treatment Grade*Sex	2	37.87		0.70	0.498

TABLE 2

THREE FACTOR ANOVA (Treatment Grade Sex)
FOR PRE-POST DIFFERENCES IN SELF CONCEPT
SCORES

	SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROBABILITY
SCHOOL SELF CONCEPT	MODEL	11	449.98	40.91	1.33	0.202
	Error	802	24668.96	30.76		
	Corrected Total	813	25.118.93			
	Treatment	1	74.11		2.41	0.121
	Grade	2	98.26		1.60	0.203
	Sex	1	24.66		0.80	0.371
	Treatment* Grade	2	92.98		1.51	0.221
	Treatment* Sex	1	90.11		2.93	0.087
	Treatment* Grade*Sex	2	62.92		1.02	0.360

TABLE 3

THREE FACTOR ANOVA (Treatment Grade Sex)
FOR PRE-POST DIFFERENCES IN SELF-CONCEPT
SCORES

	SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROBABILITY
HOME SELF CONCEPT	Model	11	328.14	29.83	0.81	0.632
	Error	794	28268.59	36.86		
	Corrected Total	805	29596.73			
	Treatment	1	31.98		0.87	0.352
	Grade	2	157.66		2.14	0.119
	Sex	1	32.99		0.89	0.345
	Treatment* Grade	2	17.32		0.23	0.791
	Treatment* Sex	1	76.69		2.08	0.150
	Grade*Sex	2	1.82		0.02	0.976
	Treatment* Grade*Sex	2	9.69		0.13	0.877

TABLE 4

THREE FACTOR ANOVA (Treatment Grade Sex) FOR PRE-POST DIFFERENCES IN SELF-CONCEPT SCORES

	SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROBABILITY
TOTAL SELF CONCEPT	Model	11	1047.77	95.25	0.61	0.823
	Error	727	113502.15	156.26		
	Corrected Total	738	114649.92			
	Treatment	1	207.13		1.33	0.250
	Grade	2	297.53		0.95	0.386
	Sex	1	48.58		0.31	0.577
	Treatment* Grade	2	193.91		0.62	0.538
	Treatment* Sex	1	89.32		0.57	0.450
	Grade*Sex	2	56.51		0.18	0.835
	Treatment* Grade*Sex	2	154.79		0.50	0.610

TABLE 5

THREE FACTOR ANOVA (Treatment Grade Sex)
FOR PRE-POST DIFFERENCES IN KNOWLEDGE
SCORES

	SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F VALUE	PROBABILITY
KNOWLEDGE						
	Model	11	7926.22	720.57	4.63	0.0001
	Error	839	130636.54	155.70		
	Corrected Total	850				
	Treatment	1	3336.98		21.43	0.0001
	Grade	2	814.11		2.51	0.0738
	Sex	1	168.99		1.09	0.2978
	Treatment* Grade	2	2963.90		9.52	0.0001
	Treatment* Sex	1	479.29		3.08	0.0797
	Grade*Sex	2	64.17		0.21	0.8138
	Treatment* Grade*Sex	2	98.78		0.32	0.7283

TABLE 6
SUMMARY OF CHANGES IN EXPECTED USE:
observed frequencies

	CHANGE FROM YES TO NO	UNCHANGED	CHANGE FROM NO TO YES	
Control	28	290	35	CHI SQUARE
Cigarettes				0.123
Experimentally	43	424	48	PROBABILITY
				0.940
Control	36	273	36	CHI SQUARE
Smokeless				1.710
Experimentally	46	418	42	PROBABILITY
				0.425

TABLE 6 (cont'd)
SUMMARY OF CHANGES IN EXPECTED USE:
observed frequencies

	CHANGE FROM YES TO NO	UNCHANGED	CHANGE FROM NO TO YES	
Control	44	279	31	CHI SQUARE
Alcohol				4.748
Experimental	55	390	69	PROBABILITY 0.093
Control	33	262	53	CHI SQUARE
Marajuana				5.376
Experimental	38	417	55	PROBABILITY 0.068